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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/039,481	01/08/2002	Yaacov Almog	1149/63502	1737

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INTELLECTUAL PROPERTY ADMINISTRATION
FORT COLLINS, CO 80527-2400

EXAMINER

RODEE, CHRISTOPHER D

ART UNIT	PAPER NUMBER
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1795

NOTIFICATION DATE	DELIVERY MODE
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04/25/2008

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

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Office Action Summary	Application No. 10/039,481	Applicant(s) ALMOG, YAACOV	
	Examiner Christopher RoDee	Art Unit 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 February 2008.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 47-66 is/are pending in the application.
- 4a) Of the above claim(s) 59-62 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 47-58 and 63-66 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Election/Restrictions

Applicant's election of Group I, claims 47-58 and 63-66, by original presentation is noted. Because applicant did not distinctly and specifically point out the supposed errors in the restriction requirement, the election has been treated as an election without traverse (MPEP § 818.03(a)). Claims 59-62 stand withdrawn.

Specification

The replacement pages 1 and 2 for the specification have been entered and are sufficient to meet the requirements for a substitute specification as set forth in the last Office action.

Claim Rejections - 35 USC § 112

The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

Claims 47-58 are rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the written description requirement. The claim(s) contains subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor(s), at the time the application was filed, had possession of the claimed invention. .

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The instant claims now specify that the coating of the ionomer added to the toner particles in a first and a second liquid toner is sufficient to result in the same chargeability for toner particles within the first and second liquid toner (see claim 47 section (B)(c)(iii)). The only disclosure in the specification of a first and second liquid toner is when there are liquid toners of different color. As stated in the specification on page 7, in the paragraph starting on line 24, "the chargeability of polymer materials is dependent on the pigment used to color the particles. When the particles are coated by an ionomer, or by an uncolored layer of some other chargeable polymer, the chargeability is the same for all colors." This is the only disclosure the Examiner can find that could relate to more than one liquid toner and this is when there are different colored toners. The claims as presented would permit the "same chargeability" limitation to apply to toners with different resins or additives. Such embodiments exceed the scope of the claims and are new matter.

The instant claims also may fail to meet the written description requirements of US Code because they may require or permit applying of two liquid toners (i.e., the first and second liquid toner) to the photoconductive surface. There is no disclosure of two liquid toners developing a charged latent electrostatic image on a photoconductive surface. For example, the claims may be stating that a single latent image is developed (via applying) with two different liquid toners. This is not disclosed or described in the instant specification.

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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Claims 47-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

As noted above, section (B)(c)(iii) of the claims requires that the coating of the ionomer added to the toner particles in a first and a second liquid toner is sufficient to result in the same chargeability for toner particles within the first and second liquid toner. It is unclear in the claims where the first and second liquid toners are used in the process. The claim has two functional steps: (A) forming a charged latent electrostatic image on a photoconductive surface and (B) applying to the photoconductive surface toner particles from a liquid toner, thereby forming an image". It is unclear how the first and second liquid toners relate to the process, apparently at step (B) because only a single liquid toner is recited here. As noted in the first paragraph rejection under this section of Code, the specification does not appear to provide basis for development of a latent image by two liquid toners.

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included in this action can be found in a prior Office action.

Claims 47-58 and 63-66 are rejected under 35 U.S.C. 103(a) as being unpatentable over EPA 176 630 in view of Whitbread in US Patent 3,325,409, further in view of Handbook of Imaging Materials to Diamond, p. 233, Metcalfe in US Patent 3,078,231, and Wagner in US Patent 3,438,904, and finally in view of Materazzi in US Patent 5,116,705.

This rejection was presented in the last Office action. The claims have been amended as noted above with respect to the section 112, first and second paragraph, rejections. The

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claim amendments are presented to address previously presented issues under section 112.

The claims as now presented are fully rejectable for the same reasons as given in the last Office action because the applied art suggests using first and second liquid toners of different colors to develop an electrostatic latent image and discloses a useful conductance of from about $3\frac{1}{2}$ to about $5\frac{1}{2}$ pmhos/cm (Materazzi). The art as applied fully addresses the issues of providing an ionomer coating to the toner particles that increases the chargeability of the toner particles. Additionally, the Examiner notes that by stabilizing the charge on the toner particle, the artisan would recognize that the charge on the particle would be brought to a consistent level. This position is supported by Metcalfe's teachings as discussed on page 8 of the 5 September 2007 Office action where Metcalfe states that coatings on toner core particles (e.g., pigments) are applied to give the requisite charge. Thus, as the artisan stabilized the charge on the toner particle, he/she would either increase the charge to a consistent value, decrease it to a consistent value, or maintain it at a consistent value. Given these limited options, it would have been obvious for the artisan to stabilize the charge at an increased level to provide a liquid toner with improved ability to attract to the latent electrostatic image (i.e., it has a higher charge that would attract better to the oppositely charged latent image or repelled by the same charged latent image in the case of reversal development).

Applicants are understood to traverse this rejection because the EP reference (Uytterhoeven) discloses enhancing the chargeability on the core material through the use of at least one ionomer in a coating to the toner particles while the EP document discloses stabilizing charge through the use of the ionomer on the pigment particles. The enhanced chargeability charges the particles to an extent that the particles can be used to develop a latent electrostatic latent image. See remarks on response pages 18 and 19.

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It is significant to note in a review of the claims, prior art, and the traversal by applicants that the coating used in the EP document is an ionomer. Applicants have not traversed the finding of fact presented by the Examiner that there is a coating on the core particle of the EP document and that the coating is an ionomer. Rather, applicants take the position that because the reference teaches the ionomer as stabilizing the charge it does not disclose enhancement of charge to provide the ability of the liquid toner to develop an electrostatic latent image. The Examiner does not agree with this position. In making this rejection, the Examiner took the position, "[t]he ionomer enhances the chargeability of the pigment particles by giving stability to the toner charge (EP pp. 1-2)." The Examiner took the same position in the Examiner's Answer of 25 June 2004, p. 6.

As is well settled in patent law, a material and its properties are inseparable. "Products of identical chemical composition can not have mutually exclusive properties." *In re Spada*, 15 USPQ2d 1655. As discussed in MPEP 2112.01, "A chemical composition and its properties are inseparable. Therefore, if the prior art teaches the identical chemical structure, the properties applicant discloses and/or claims are necessarily present." Applicants do not provide any limitations on the ionomer other than it provide enhanced chargeability and that its coating increases the charge. Because the EP document provides an ionomer on a core particle for a liquid developer it would be expected to provide the same enhanced chargeability, particularly in the manner of giving stability to the toner charge. Increasing the charge would have been obvious to the skilled artisan for the reasons above. The Examiner maintains the position that the art in combination discloses and suggests each feature of the claimed process and liquid toners and provides rationale for their combination.

Applicants' remarks are also not persuasive because the finding of fact concerning the coating of the EP as providing enhanced chargeability through stable particle charge has

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already been affirmed by the BPAI in the decision of 15 May 2007. This limitation was present in the claims under consideration of the BPAI (see BPAI decision pp. 2-4). In the paragraph spanning pages 7 and 8 of the affirmed decision the BPAI specifically references the Examiner's position that "an artisan would have so combined the applied reference teachings in order to obtain the stable (i.e., enhanced) particle charge associated with Uytterhoeven's anionic polymer (i.e., ionomer) coating (Uytterhoeven 1-2) and the benefits associated with the pigmented polymer particles and charge director of the other applied references." The BPAI does not disagree with the Examiner's finding of fact and, in fact, relies on the Examiner's findings and conclusions when they state "we adopt [the Examiner's] rebuttals as our own.

The rejection is maintained for the reasons given here and as presented by the BPAI in its decision.

Conclusion

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

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Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher RoDee whose telephone number is 571-272-1388. The examiner can normally be reached on Monday to Thursday from 5:30 to 4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Christopher RoDee/
Primary Examiner
Art Unit 1795

23 April 2008